

REMARKS

This response is intended as a complete response to the Decision on Appeal decided May 28, 2009. In view of the following discussion, the Applicants believe that all claims are in allowable form.

CLAIM REJECTIONS

1. 35 USC §103 Claims 1, 3-18, and 36-53

Claims 1-18 and 36-53 stand rejected under 35 USC §103 as being unpatentable over US Patent No. 6,625,497, issued September 23, 2003, to *Fairbairn, et al.* (hereinafter *Fairbairn*) in view of US Patent Application Publication No. 2004/0078108, published April 22, 2004, to *Choo, et al.* (hereinafter *Choo*) and further in view of US Patent 6,567,717, issued May 20, 2003, to *Krivokapic, et al.* (hereinafter *Krivokapic*) and US Patent Application No. 2004/0087041 published May 6, 2004 to *Perry, et al.* (hereinafter *Perry*).

In the Response Decision on Appeal, the Board asserts that the re-etch process of *Krivokapic* with respect to re-work of under-etched wafers would meet the limitations of claims 1 and 36. (*Decision*, p. 6.) In response, the Applicants have amended claims 1 and 36 to more clearly recite aspects of the invention.

Specifically, the Applicants have amended claim 1 to recite, wherein the etch process is performed in an etch reactor and wherein the at least one post-etch process is performed in substrate processing equipment external to the etch reactor. The Applicants have similarly amended claim 36 to recite, wherein the etch process is performed in an etch reactor and the at least one pre-etch process and the at least one post-etch process is performed in substrate processing equipment external to the etch reactor.

The return of an under-etched wafer to the etcher of *Krivokapic* for rework is a return to the same etcher, and is not performed in substrate processing equipment external to the etch reactor, as recited in claims 1 and 36, as amended. Therefore, *Krivokapic* fails to teach, suggest, or otherwise yield a modification to the teachings of *Fairbairn*, *Choo*, and *Perry* that would yield the limitations recited in the claims.

Hence, a *prima facie* case of obviousness has not been established as the combination of the cited references fails to yield the limitations recited in the claims.

Thus, the Appellants submit that independent claim 1 and 36, and claims 3-18 and 37-52, respectively depending therefrom, are patentable over *Fairbairn* in view of *Choo*, and further in view of *Krivokapic* and *Perry*. Accordingly, the Appellants respectfully request that the rejection be withdrawn and the claims allowed.

2. 35 USC §103 Claims 19-21

Claims 19-21 stand rejected under 35 U.S.C. §103 as being unpatentable over *Fairbairn* in view of *Choo*, *Krivokapic*, and *Perry*, as applied above to claim 1, and further in view of US Patent Application No. 2003/0022510 published January 30, 2003 to *Morgenstern* (hereinafter *Morgenstern*).

Independent claim 1, from which claims 19-21 depend, recites limitations not taught or suggested by any permissible combination of the cited art. The patentability of claim 1 over the combination of *Fairbairn*, *Choo*, *Krivokapic*, and *Perry*, is discussed above.

The Examiner contends that *Morgenstern* discloses a process to modify the planarization step and the recess etch step in order to arrive at a process that can be better integrated which involves monitoring the thickness of the polysilicon layer by interference spectrometry. (*Examiner's Answer*, p. 19-20, citing *Morgenstern* ¶ [0009] and ¶ [0025].) Even if *Morgenstern* teaches forming a capacitive trench structure, and/or modifying a planarization step and recess etch step as asserted by the Examiner, *Morgenstern* still fails to teach or suggest executing a multi-pass process wherein the substrate is processed more than once by a measurement process, an etch process, and at least one post-etch process while forming the at least one structure, wherein the etch process is performed in an etch reactor and wherein the at least one post-etch process is performed in substrate processing equipment external to the etch reactor, as recited in claim 1.

Hence, *Morgenstern* fails to teach or suggest a modification of *Fairbairn* in view of *Choo*, *Krivokapic*, and *Perry* that would yield the limitations recited in claim 1.

Therefore, a *prima facie* case of obviousness has not been established as the combination of the cited references fails to yield the limitations recited in the claims.

Thus, the Appellants submit that claims 19-21 are patentable over *Fairbairn* in view of *Choo*, *Krivokapic*, and *Perry* and further in view of *Morgenstern*. Accordingly, the Appellants respectfully request that the rejection be withdrawn and the claims allowed.

CONCLUSION

Thus, the Applicants believe that all claims now pending are presently in condition for allowance. Accordingly, both further consideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that any unresolved issues still exist, it is requested that the Examiner telephone Alan Taboada at (732) 935-7100 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

August 5, 2009

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